

CLAIMS

What is claimed is:

1. A method for managing materialized views, the method comprising the steps of:
 - a database system receiving a request to generate a materialized view that contains objects of an object class;
 - in response to receiving said request, said database management system creating said materialized view; and
 - said database management system performing operations on said objects as instances of said object class.
2. The method of claim 1, wherein the step of creating said materialized view includes the step of creating an object materialized view, wherein said object materialized view is associated with an object class and contains instances of said object class that correspond to rows of said object materialized view.
3. The method of claim 1, wherein the step of creating said materialized view includes creating an object-relational view that includes at least one object column.
4. The method of claim 1, wherein the method further includes the step of receiving another request from a user requesting performance of said operations on said objects as instances of said object class.
5. The method of claim 1, wherein the step of said database management system performing operations includes performing an operation on said objects by invoking a routine associated with said object class.
6. The method of claim 1, further including the step of said database management system generating refresh code that refreshes said materialized view.

1 7. The method of claim 1, further including the step of generating refresh code that may be
2 executed to fully refresh said materialized view.

1 8. The method of claim 1, further including the step of generating refresh code that
2 refreshes said materialized view based on modifications to one or more base tables of
3 said materialized views.

1 9. The method of claim 8, wherein:
2 said materialized view includes an object column associated with said object class,
3 the object class is associated with attributes;
4 the step of creating said materialized view includes creating a container table that
5 includes corresponding columns that correspond to said attributes and that hold
6 values for said attributes; and
7 the step of generating refresh code includes the step of generating refresh code that
8 references said corresponding columns but not as said attributes of said object
9 class.

10 10. The method of claim 1, wherein said materialized view includes an object column that
11 has a plurality of nested tables that contain nested table objects.

1 11. The method of claim 10, wherein the step of creating said materialized view includes the
2 steps of:
3 creating a container table for said materialized view; and
4 creating another table that holds attributes of nested table objects of said plurality of
5 nested tables.

1 12. The method of claim 1, wherein:
2 said materialized view is associated with one or more base tables;

3 a base table of said one or more base tables includes a base column typed as an object
4 reference; and
5 wherein the step of creating said materialized view includes creating a particular column
6 that:
7 corresponds to said base column, and
8 is typed as an object reference.

1 13. The method of claim 12, wherein:

2 a first scope of said base column is a first set of tables; and

3 the particular column has a second scope that is different than said first scope.

4 14. The method of claim 13, wherein the second scope is another materialized view based on
5 said first set of tables.